

What is claimed is:

1. A connector unit for a high frequency radio apparatus having a housing, a first internal antenna provided inside the housing, a radio unit provided inside the housing for processing a radio signal, and an external antenna capable of being inserted and drawn from outside the housing, comprising:

a printed board including a first microstrip line connected to said radio unit and a second microstrip line connected to said first internal antenna;

a fixed contact provided on said printed board and connected to said second microstrip line;

an elastically-deformable, movable contact provided on said printed board and connected to said first microstrip line, and urged toward said fixed contact; and

a socket for covering said movable contact and said fixed contact,

wherein a distal end of said external antenna enters between said movable contact and fixed contact when said external antenna is inserted into said socket, the distal end of said external antenna abuts on said movable contact and presses said movable contact to separate the movable contact from said fixed contact, and said external antenna is matched in impedance and connected to said radio unit, and

wherein said movable contact abuts on said fixed contact when said external antenna is drawn from said socket, and said first internal antenna is matched in impedance and connected

to said radio unit.

2. The connector unit of claim 1, wherein said external antenna has a plug provided at the distal end thereof, said plug including a pin-shaped signal contact and a cylindrical
5 ground contact surrounding the signal contact,

said socket has a grounded cylindrical first shell for covering said movable contact and fixed contact and a grounded cylindrical second shell for covering the first shell, and

wherein said signal contact enters inside said first shell
10 and separates said movable contact from said fixed contact when said plug is inserted into said socket, and said ground contact enters between said first shell and second shell and abuts on both of said first shell and second shell.

3. The connector unit of claim 1 or 2, wherein said printed
15 board has a ground pattern, and a circuit element mounting area formed between the ground pattern and said second microstrip line and having a circuit element mounted thereon.

4. The connector unit of claim 3, wherein said circuit element is a chip capacitor which allows a signal under a cutoff frequency
20 of said first internal antenna to pass therethrough directly and attenuates a signal at or over the cutoff frequency of said first internal antenna.

5. The connector unit of claim 3, wherein said circuit element is a chip inductor which allows a signal over a cutoff frequency
25 of said first internal antenna to pass therethrough directly, and attenuates a signal at or under the cutoff frequency of said first internal antenna.

6. The connector unit of claim 1 or 2, wherein said printed board includes a chip capacitor connected in series to said second microstrip line, and

the chip capacitor allows a signal under a cutoff frequency of said first internal antenna to pass therethrough directly, and attenuates a signal at or over the cutoff frequency of said first internal antenna.

7. The connector unit of claim 1 or 2, wherein said printed board includes a chip inductor connected in series to second microstrip line, and

the chip inductor allows a signal over a cutoff frequency of said first internal antenna to pass therethrough directly, and attenuates a signal at or under the cutoff frequency of said first internal antenna.

8. The connector unit of any one of claims 1 or 2, wherein said first internal antenna and said external antenna send and receive any one of a radio wave of a 2.4GHz frequency band standardized under IEEE 802.11, a radio wave of a frequency band around 5.2GHz standardized under IEEE 802.11a, a radio wave of a 2.4GHz frequency band standardized under IEEE 802.11b, and a radio wave of a 2.4GHz frequency band standardized under IEEE 802.11g.

9. The connector unit of claim 8, further comprising a second internal antenna provided inside said housing and connected to said radio unit, wherein a diversity system is adopted.